

Agricultural Education

"If the American farmer is to prove an exception to the history of the world and remain the independent, thinking, reading, progressive individual he has thus far been instead of becoming a peasant, as he has before in all history, it is necessary that he be given the broadest possible training and be educated most thoroly in the fundamental principles underlying his profession."

—Henry Jackson Waters, 1909

The happiest and most successful farmers of the future will surely be those who have fortified themselves with the best information in the science and art of farming.—A. M. Field

EDITORIAL COMMENT

AGRICULTURAL EDUCATION

A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by the Meredith Publishing Company at Des Moines, Iowa.

MANAGING EDITORS

Sherman Dickinson, Columbia, Missouri.....Editor
H. M. Hamlin, Ames, Iowa.....Associate Editor
F. E. Moore, Des Moines, Iowa.....Consulting Editor
W. F. Stewart, Columbus, Ohio.....Business Manager

SPECIAL EDITORS

A. M. Field, St. Paul, Minnesota.....Methods
A. P. Davidson, Manhattan, Kansas.....Book Reviews
A. K. Getman, Albany, New York.....Professional
Edm. C. Magill, Blacksburg, Virginia.....Research
C. R. Wiseman, Brookings, South Dakota.....Research
H. O. Sampson, New Brunswick, New Jersey.....Future Farmers of America
G. A. Schmidt, Fort Collins, Colorado.....Supervised Practices
M. A. Sharp, Ames, Iowa.....Farm Mechanics
Roy H. Thomas, Raleigh, North Carolina.....Part-time Schools
C. L. Davis, Austin, Texas.....Evening Schools

EDITING-MANAGING BOARD

F. E. Armstrong, Hawaii; J. D. Blackwell, Maryland; Paul Chapman, Georgia; Sherman Dickinson, Missouri; E. W. Gregory, Indiana; H. M. Hamlin, Iowa; Ray Effe, Ohio; William Kerr, Idaho; C. H. Lane, Washington, D. C.; F. E. Moore, Iowa; L. M. Samsan, Wisconsin; W. F. Stewart, Ohio.

Agricultural Education is indexed regularly in the Education Index.
Subscription price, \$1 per year, payable at the office of the Meredith Publishing Company, Des Moines, Iowa. Foreign subscriptions, \$1.25. Subscriptions terminate January 1 or July 1. Single copies, 10 cents. Contributions should be sent to the Special Editors or to the Editor. No advertising is accepted.

Entered as second-class matter, under Act of Congress, March 3, 1879, at the post office, Des Moines, Iowa.

WERE YOU EVER HUNGRY?

I TAKE it that most of the readers of this page grew up on a farm. It is to them that I address this question, "Were you ever hungry?" I do not mean the kind of hunger you have, just because you have been away from mother's pantry for an hour or so. I mean hunger, hunger that is real and fearsome, hunger that gnaws and hurts, hunger that pulls and bends and breaks you over. It is absurd to ask the question again I know, but really, "Were you ever hungry?" Think this over and then call in your class of farm reared boys and ask them. The chances are that they have never given the idea any serious consideration and certainly they will be struck with the absurdity of it. But, ask it anyway!

Last year we collected millions of dollars in these United States of ours from "those who have" for "those who have not." You know about the collecting and you will hear more about it, but how much serious consideration have you or your group given to why it was collected or for whom it was intended? While you are trying to decide how hungry you have been, suppose you add this to your list of things to wonder about.

We really had an act of providence last summer, the prolonged drouth, which almost overshadowed our national drouth of employment. However, excepting this temporary calamity, this matter of national hunger had the undisputed attention of the whole nation. It was in recognition of this that we extended our philanthropic energies so. In the main this national hunger was confined to the cities and suburban areas and is a matter about which neither you, I, nor any of your class have much first-hand information. Practically all of the collecting was done for the city man who is a city man because of the advantages the city affords.

You can say what you please but I have never grown very enthusiastic about a diet of electric light bulbs, or about trying to keep warm by a bathtub's ruddy glow. Daily contact with a neighbor is fine but it is somewhat lacking in the ability to stop that awful empty feeling in the pit of your stomach. After all I may be wrong but our philanthropic millions went for deferred payments on the city advantages, rather than for those things which satisfy.

If you want to know the real truth of the matter, it is no secret that most of what we collected was spent for food, food, FOOD, FOOD, good old American grub. Just the same kind of stick-to-ribs and stay-with-you bread and bacon (side-meat), as that our mothers know so much about. It may be that some was spent for shelter and that

a little was spent for clothing but *most of it was spent for food.*

Bathtubs, sidewalks, electric lights, eight-hour days, five-day weeks, neighbor contact, bright lights, recreational proximity, all listed and accepted as advantages of city living (and they have their worth), are hard to enjoy on an empty stomach.

When I select the work upon which I shall depend for my livelihood, I think *I'll eat first. I've been hungry.*—R. W. G.

AN EDUCATION THAT BRINGS RETURNS

[An editorial by John Case in the September 15 number of The Missouri Ruralist.]

VOCATIONAL agriculture training, in my opinion, is the most worthwhile effort ever made by our Uncle Samuel in behalf of agriculture. This statement is made after watching the work of teachers, students, and graduates ever since the system was installed. Vocational agriculture does more than fit farm youth for farm life. It dignifies the profession of food production, it develops leadership, it is building up a militant organization which will make the pallid co-operation of today's farmers seem even more weak in a few years. These state and national Future Farmer organizations are functioning without jealousy and with just enough friendly rivalry between state groups to spice activities. We can expect much from them in the future of agriculture.

Out of this organization should come a great national leader. He may be a Missourian. Leslie Fry, national president and a Missouri boy, has shown the mature thought of a man twice his age. Paul Zillman, who has served as national secretary, is another lad of great promise. Edward Drace, winner of the \$500 Capper prize in the National Public Speaking contest last November, can assemble and present facts in a plea for agriculture more eloquently and forcefully than 90 percent of the men in Congress who speak for us. The most helpful aspect of agriculture is the mental growth and ability of such coming leaders. Yes, vocational agriculture does more than train a boy to farm. He grows.

TEACHER CONTRIBUTIONS

WHOSE paper is this? When it was started some two years ago, its founders thought it would be a magazine of the teachers, by the teachers, for the teachers. As such it will live and prosper, but if it is to become a publication of, by, and for the special editors, teacher trainers and supervisors, it will be short lived.

This is not to be interpreted as adverse criticism of the past, but rather a warning of what might happen in the future. Editors must furnish copy, and if they can not get it from others, they must write it themselves. Teacher trainers and supervisors respond better than teachers, but if this publication is to be a success, the bulk of the articles must come from the teachers out in the field.

Many men feel that they must have something spectacular or unusual to write about. This is wrong. Few teachers are interested in or are in a position to do spectacular things. This is not a newspaper. What they need is new ideas about how to do ordinary things better. No teacher with a good idea that has worked should be so selfish as to keep it to himself. Helping others never does a man any harm. To interest a group, we must discuss problems with which they are confronted. Just tell the other fellows how you solved yours and you will get help from them. Do it now.—M. A. S.



Professional



Jesus as a Teacher

ARTHUR K. GETMAN, Chief Agricultural Education Bureau, New York

NOW and then thru history a few great teachers have appeared to whom teaching is a passion as well as a profession. A Socrates, an Aristotle, an Agassiz, a Palmer, or an Elliott lifts teaching to the high level of a creative enterprise. Such teachers, indeed are great men. In their absence education slips back into the mere pursuit of classroom duties or tacitly meeting the customary requirements for entrance into the vocation.



A. K. Getman

In recent months I have found pleasure in studying Jesus, as a teacher, to discover His method and His point of view rather than to examine His content of teaching. One soon discovers why Jesus is the greatest teacher of all times. The lofty and far-reaching nature of His messages, His skillful methods of teaching, and the marvelous changes which have been wrought thru His teaching, have helped to win for Him the name, "Great Teacher." In a day when the profession of education is coming into its own and when scientific principles are brought to bear on the problems of the teacher, it is both inspiring and helpful to pause and note the directness, the simplicity and the forcefulness of such a leader. From that early day when as teacher He gathered the little band about Him, to the present, He is the central figure in both the art and the science of teaching. The magnetic personality of Jesus, the numerous facts regarding His work, and the labyrinth of situations in which He taught make a study of His method exceedingly difficult. In our effort to examine His method we must not lose sight of His complete personality. A grave danger in studying the work of a great leader is that of getting so close to a particular detail as to lose its setting in achieving a true purpose.

Note first of all that Jesus seemed to choose the most natural setting for His teaching. He taught on the hillside, from a boat, along the wayside, in the villages, and in the homes of the people. "When He had sat down His disciples came unto Him; and He began to teach them," writes Matthew. His manner, which seemed characteristically informal encouraged the interest of His hearers and stimulated them to ask questions. Here we touch the very heart of Jesus' method. He realized that thinking begins in a problem or a felt difficulty. He knew that we think best when there is some obstruction to our thoughts. Three hundred years earlier, Aristotle had declared, "All knowledge

starts in wonder." Jesus' skillful use of problems and questions as a means of teaching seems central in a study of His method. Three ways are apparent; He encouraged His hearers to state their own problems, He sought to stimulate or awaken the question in their minds, and He used the barbed questions of His enemies to teach His vital truth.

The first use of the question is illustrated by the problem of the wealthy young man who came for counsel, the problem of Peter perplexed over the number of times that He should forgive his friend and the inquiry regarding who would have the exalted place in the Kingdom. These and numerous other questions gave Jesus opportunities to teach a basic truth in addition to solving the immediate problems of His questioners.

One marvels at Jesus' skill in suggesting a question to prompt thought. Reread the story of the woman of Samaria. Note the artful question of Jesus and the subsequent statement regarding her inner life. She still marvels as she hears of the "living water," until finally she is touched by the question which penetrates to the depths of her soul. On another occasion Peter was challenged by the query, "Simon, are you more devoted to me than the others are?" Space limits a detailed study of the many instances of Jesus' thought-provoking questions.

It has long been our custom, when opinions differ, to propose a question which will trap or muddle our opponent. Jesus' enemies were bitter against Him and sought constantly to trap Him. In such situations we see Him rising to supreme heights in the teaching art. His turning of the dilemma back upon the intruder, and His clear insight into human nature remain an inspiration to all students of education. "Whose head and title are these?" parried Jesus as they sought to trap Him in a matter of loyalty to the government. "The emperor's," came the answer. "Then pay to the emperor what belongs to the emperor and to God what belongs to God," came the intriguing response of Jesus. By the skillful question he shifted the emphasis and intent from governmental to life values. Indeed, it is not strange that "they marveled at Him." At many points in the Story we find examples of Jesus' use of His enemies' questions. The situations of plucking corn on the Sabbath, curing the sick on sacred days, and the woman marrying seven husbands will be recalled readily.

Does it not seem clear that the ability of Jesus to deal so pointedly with life problems may be attributed in part at least to His insight into human nature? Very frequently thruout the Story He gives evidence of such an insight. "When He became conscious of the way in

which they were debating," "Knowing their hypocrisy," "Jesus knew from the first who they were who did not believe," "Knowing their thoughts, Jesus said," and "Jesus, however, was aware of what was passing in their minds and said to them," are examples familiar to the thoughtful reader. He went directly to the heart of personal problems of life. Theories and suppositions of the mind were conspicuously lacking. Whether His questioners were sympathetic followers or hostile critics He penetrated straight to the heart of the problem of each person present. Sometimes he felt that they could not grasp the meaning of His message, so he deferred telling it to them: "I have much to say to you, but you cannot bear it at present;" "It is not every one who can accept this teaching;" "He used to tell the people His message as far as they were able to receive it."

Again, Jesus was master of the art of apperception. Skillfully He connected the old with the new. Upon the commandments laid down by Moses, Jesus built His two supreme commandments. He pointed out with great clearness that transgressions start in the mind. He contrasted the Mosaic, seventh commandment with His injunction not even to think evil thoughts. At one point He declared, "Do not imagine that I have come to do away with the Law or the Prophets; I have not come to do away with them but to complete them." Then, at many points He links His message regarding a cleansed inner life with the scriptural experiences of the Jews, saying, "You have heard that it was said, but I say to you." He started where they were and sought to carry them forward into new and happier life experiences.

Finally, the parable stands forth as a unique and effective means in Jesus' method. In the early months of His work He seemed to choose the direct statement of truth in order to win the multitudes to His program. The meager response is well known. Then, in the closing months He concentrated on the training of the twelve to carry on the great work. It is in this intimate teaching relation that we find Him using His more than thirty parables. By their use He attracted the attention of His hearers thru comparisons with every day activities. They were more likely to remember the life incident and to meditate upon its deeper meaning if they were unable to grasp the full meaning at the time. The parable or life incident remained in their memory, and at some future time its deeper spiritual significance would flash upon them. Note that the parables did not necessarily portray actual happenings but rather were in general harmony with life situations.

(Continued on page 69)

A Superintendent Looks at Vocational Agriculture

JOHN J. SKINNER, Superintendent Owatonna Public Schools, Owatonna, Minnesota

[Summary of an address delivered before the annual summer conference of Minnesota teachers of agriculture, Alexandria, Minnesota, June 8-12, 1931.]

REGARDLESS of the importance of the subject of agriculture, where it has been introduced in high schools, there is no other department of instruction which rests on so insecure a foundation and whose continuance is so frequently threatened. This is true in part because of the fact that the funds for its support come from state and federal sources under the control of legislators remote from the points where these funds are put to use and where the results can be observed.

While this situation adds no small degree of uncertainty to the place of agriculture as a branch of education, the greatest source of danger emanates from internal causes which are under the control of the people engaged in the work. As a superintendent of schools I have had an opportunity during a period of a good many years to observe various departments of agriculture in operation, and take note of the attitude of school authorities concerning these departments. As an administrator I have heard criticism and dissatisfaction more frequently expressed concerning agriculture than of any other subject. I have been called on to defend the continuance of that work more frequently than of any other department.

Now, if agriculture is so frequently under fire there must be a reason for it. Boards of education, high school principals, and superintendents as a rule are fair and reasonable, and the composite attitude of these people should have some significance. It has been my purpose to try to find out the reasons for this adverse feeling, and to take them into account in establishing certain principles to be followed as a guide in the operation of our department.

The Owatonna High School maintained a state-aided department prior to the World War. I am frank to say the work never met with the enthusiastic support of the school authorities or the public. Nobody was particularly perturbed, when at the outbreak of the war the department was dropped. Some time later the Smith-Hughes plan was presented to our board of education setting up new objectives, new standards, and new methods. From that time to this there has been little doubt in the minds of those closely in touch with the work of the success of the new plan. The following are some of the principles upon which the department in our school has been operated.

First of all the enterprise has been recognized as a teaching job. We sometimes evade the name "teacher," perhaps because of the traditional ideas about the schools and school methods. The term "teacher," however, is a significant one. Every person who has in charge a group of people to be trained in the performance of a specific task is a teacher.

The agriculture instructor has in his

charge some twenty-five to thirty farm boys. It should be his purpose to train them in the acquisition of certain knowledge and skills, and to stimulate them with the desire to succeed. He must, therefore, be equipped with the arts and devices of a teacher. It is not possible to elaborate here on what this involves, any more than to state that a good teacher must know his stuff; he must establish the right objectives; he must be skilled in directing and stimulating the work of his students in the preparation of their tasks; and finally, he must be able to test and measure the results.

The second principle provides that the course of instruction be prepared and designed for the farm type of boy. We have tried to recruit our classes to an enrollment of 20 to 30 members, including only boys who have had sufficient training to enable them to grasp the high school courses in agriculture, who probably will continue in school to graduation, and who will eventually return to the farm. If there is any one practice that has contributed to the success of our department it has been the discrimination with which the classes have been recruited. Whether or not our policy in this respect is justifiable, it has enabled us to maintain high standards of achievement in the department, and it has contributed many outstanding student leaders in various activities.

The third fundamental principle we have observed is that the objectives established should be vocational in their purposes. Under the old plans the courses were decidedly general in their scope, classes were recruited from all departments of the school and included boys and girls of a wide range of abilities and interests. The students with which the instructor had to work were of such a diverse type it was not possible to prescribe either methods or courses equally well adapted to the different interests and abilities of the students. Three fundamental weaknesses were apparent: (1) Definite objectives were not established; (2) the teacher was not prepared in effective teaching technique; (3) the students were not provided with sufficient laboratory and field experiences. The conditions under which the teacher worked were not at all favorable. As a rule he was charged with too great a variety of duties. Looking back at some of the early experiences it is difficult to understand how any teacher could achieve success in any of the numerous responsibilities assigned to him.

Oftentimes young men fresh from college were sent out to high schools and were expected to do successful teaching, to serve as a county agent, a farm demonstration worker, a farm bureau manager, and to be withal, a jack-of-all-trades. I believe that a large part of the dissatisfaction so frequently expressed

by superintendents and principals came from the fact that the agriculture teacher's duties took him away from the high school, making it necessary for him to leave his classes and pupils under somebody else's supervision. Some of the teachers whom I have known were not any too slow in taking advantage of every opportunity to get away from the school building. Under the present plan, while a teacher must necessarily engage in numerous field and other activities, his chief interests center in the group of pupils enrolled in his own department.

The fourth principle which has been a guiding factor is recognizing the department of agriculture as an integral part of the school. After the director assembles his group at the beginning of the year he might indulge in reflections somewhat as follows: "What do these boys need in the way of preparation to become successful farmers? Success on the farm requires something more than a knowledge of production and distribution. Success on the farm involves the same qualities of character and general intelligence as do other vocations." It has been our purpose, therefore, to encourage the agriculture students to participate in all the activities which the school provides. It has been a matter of great satisfaction to note how many outstanding leaders the department has contributed. This policy has played a great part in keeping the agriculture students in school and in gaining new recruits. It has been a further satisfaction to note the great number of farm students who have continued in school to graduation, and who still retain their loyalty to the high school.

The fifth factor which has contributed a large measure of strength to the department is the effective leadership of the men who have had that work in charge. A good leader must possess a certain degree of earnestness, sincerity, and singleness of purpose. He should possess the qualities of personality which will enable him to gain the respect of his students, his fellow teachers, and the people of his community. He must understand boys and believe in them without idealizing them. He should have faith in their inherent goodness without being blind to their frailties. Above all, it should be his over-mastering purpose to direct them in the ways of good, clean, American manhood.

The "Ag Club" whose membership is limited to the department of agriculture has played an important part in maintaining a high degree of enthusiasm. To function in the right way the agriculture club should have certain worthwhile purposes. First, it should afford an opportunity to study topics relating to the farm activities and interests of the individual members. Second, it should provide training in parliament-

(Continued on page 80)

Secondary Agricultural Education and School Economy

H. M. HAMLIN, Teacher Trainer, Iowa State College

THE program for economy in school expenditures which we have with us this year is likely to be a rather permanent one. On the whole it is desirable and necessary. It comes at a time when it can gain liberal reinforcement from the best thought of the times regarding educational psychology. If this modern thought is sound, there can be liberal pruning of the educational system without serious harm and possibly even with benefit.



H. M. Hamlin

The past 20 years has been a period of introducing new and special kinds of education. Their introduction has been supported by the Thorndikian conception of the mind as a collection of thousands of relatively independent special functions, each of which requires separate training. Vocational education has ridden far on this support.

But now we are again coming to think of the mind as a unit susceptible to general training. As Dr. B. H. Bode has said in the splendid article on this subject in the February issue of *Midland Schools*:

"Traditional education was built around the notion of general education. This notion was sound, but its application was wrong. It was tied up with the belief that the mind is made up of 'faculties'—such as reasoning, remembering, imagining, and the like—which could be trained by exercise, just as the muscles of the body can be trained by going thru a set of exercises in the gymnasium. When this belief was discredited, a movement toward 'specific' and 'practical' education got under way. The arguments against formal discipline were supposed to disprove general education, too. As the Germans say, the baby was poured out with the bath.

"This new education gospel was proclaimed in the name of science but we are beginning to develop misgivings. Science, like charity, may be made to cover a multitude of sins. It is safe to say that there is at least as much scientific evidence in favor of general education as there is against it. Our present problem is to develop the methods by which general education may be secured. The best preparation for life in a changing civilization lies along the road of independent thinking, for the purpose of developing mastery of principles and of cultivating generalized attitudes and standards of value and conduct."

Assuming as many of us now do that a rightly conceived general education is not only possible, considering the nature of human mentality, but that it is by all odds the most important kind of education for adolescents, where are we in agricultural education left?

Well, secondary agricultural educa-

tion was never properly conceived as only an agency of specialized vocational training. Agriculture is one of the richest and broadest of the school subjects. It may contribute to all of the seven cardinal aims of education. It may be so taught as to yield rich benefits in improved ability for thinking, superior personality and character traits, multiplied interests. The teacher of agriculture may set the same fine example of wholesome, well-balanced, cultured personality that any other teacher sets.

If the economy wave continues and the public makes further choices among the subjects to be continued, we can be confident that those which remain in the high school will be those which contribute mainly to general education, to the development of those characteristics which have always been associated with the well-educated person. If we can show that agriculture contributes its fair share, it will last as a school subject. If it is found that it not only does not contribute but that it operates against the ends of general education, it will not last, at least in the secondary school, which is an institution of general education.

If we can show that, in addition to increasing the earning capacity of those who study it, agriculture is so taught that it contributes as much toward general education values as any other subject, the public may decide with State Superintendent Francis G. Blair of Illinois that "Agriculture is basic in the rural high school curriculum." The writer believes that this estimate may eventually be justified if we will do our part as teachers and that agriculture may thus be placed out of the reach of future economy campaigns such as the one we are now experiencing.

At any rate, the future of secondary education in the United States plainly belongs to a new type of general education toward which the so-called vocational subjects may make a liberal contribution.

Jesus As a Teacher

(Continued from page 67)

They served as a means to aid His pupils in understanding difficult questions.

Thus, Jesus' three-fold use of the question, His linking a new truth with an old experience, and His use of the parable, appear, in my study as prominent features in His method. Let us note in passing that method in teaching is merely a way of acting to get desired results. It is arranging and controlling opportunities so that pupils may grow in the right way. Jesus sought to teach men to re-direct their own lives. In a supreme and complete way He embodied His truth in His own life and death. Is it not helpful for us in modern times in training youth to live and to make a living to pattern our method after the ways of the Great Teacher?

Accurate insight into the problems of each pupil, providing opportunity to solve such difficulties thru the various uses of the question, building new experiences out of old ones, and using practical, everyday life examples to guide pupils represent some of the ways of following such a pattern. Especially in our chosen field of service where aims of making a life as well as making a living are so prominent, it should not be difficult to weave the fabric of such a pattern into the structure of our own method.

Within most of us there is a driving urge to perpetuate ourselves and those values for which we stand. The architect finds such expression in his cathedral or in the handsome public edifice, the artist perpetuates himself with his painting, while the writer presents for all men the results of his finest thought. How then, may the teacher perpetuate himself and his ideals of service? Indeed, it is fortunate that Jesus answered that question in words that have come ringing down the centuries to give zest and purpose to the lives of all teachers. Forsaken, first by the multitude, then by His own townspeople, He gathered the twelve in an upper room on the last night before His tragic death. Anticipating the responsibility in teaching which the twelve must assume He gave His parting appeal, "In you, I am glorified." How well that appeal was carried forward is well known. No single force in the history of mankind has so changed the lives of men. Perhaps in your study of Jesus as a teacher you may catch this keynote in His matchless method. Perhaps, too, your study may help you, the better to perpetuate your own aspirations and high ideals in the lives of the boys under your instruction.

Heim Gets New Job

Mr. R. W. Heim has resigned his part-time work as State Supervisor of Vocational Education in Agriculture, under the Delaware State Board of Education, in order to administer the "World War Orphans' Education Act." Mr. Heim will continue to serve the State Board of Education as State Director for Vocational Education and Professor of Agricultural Education, University of Delaware.

Mr. W. Lyle Mowlds, formerly teacher of agriculture at Seaford, Delaware, has been appointed state supervisor of vocational education in agriculture. Mr. Mowlds' address is State Board of Education, State Office Building, Dover, Delaware.

Palmer to Montana

Mr. R. H. Palmer, a member of the staff of the vocational education department of Iowa State College, has been chosen head of the Department of Agricultural Education of Montana State College at Bozeman. Mr. Palmer will succeed Professor S. S. Sutherland, who will become a district supervisor of agricultural education in California.



Evening Schools



Teaching Co-operation Thru Evening Schools

ARATA BULL, District Supervisor, Jackson, Tennessee

SOON after the conference with officials of the Farm Board, the Federal Board for Vocational Education, supervisors, and teacher trainers held in Chattanooga in November, 1930, we revised our farm management course.

Small group conferences were held to discuss this course and to make plans for putting it into effect.

The revised course for the cotton section follows: First meeting—What laws authorize the Federal Government to help farmers? How does each law provide for helping farmers? Second meeting—How farmers can get aid from the Federal Government. Why farmers should produce plenty of food and feed for home use. Third meeting—What livestock and poultry should farmers keep in 1931. Fourth meeting—What crops to produce for home use and how many acres of each to plant? Fifth meeting—How many acres of cotton to plant in 1931. Sixth meeting—What cash crops to grow besides cotton. Seventh meeting—What varieties of crops to plant in 1931. Eighth meeting—Why farmers should produce a better grade and staple cotton. Ninth meeting—How farmers can get pay for their cotton according to grade and staple. Tenth meeting—Reviewing all previous lessons and enrolling farmers for supervised practice.

Teachers re-worked this course to suit their local conditions. With the exception of the subject, "How farmers can get pay for their cotton according to grade and staple," the lessons were taught by the local teachers. It was at this meeting that we taught co-operative marketing of cotton.

A Drawing Card Helps Get Farmers in Evening Schools

A number of farmers had lost money in the old Tennessee Cotton Marketing Association and many others had been misinformed about co-operative marketing. Our goal was not to get members for the association but to clear up a lot of misunderstandings and break down the prejudice against co-operative marketing. To do this it was necessary to have a drawing card to get a large number to the meetings.

Here is what we did: We arranged with the officials of the Mid-South Cotton Association for them to give us the service of two A. C. C. A. cotton classers for two months. These men could talk to farmers and knew the details of the association. All of the teachers in the cotton section of the state sent letters to



Arata Bull

SUMMARY

1. Provide a "drawing card" to get attendance; use conference procedure to hold it.
2. Teachers must make the proper psychological approach to farmers and farm problems when organizing and teaching agricultural evening schools.
3. It is the evening school-teacher's job to get the proper information to the farmers and the farmers' job to make their own decisions about what they should do.

all cotton growers in their communities telling them that on a certain date a government licensed cotton classer would be there to discuss classing and marketing cotton.

Seventeen hundred fifty-eight farmers attended the 42 meetings where the cotton classers talked. Each classer carried and displayed eight boxes of government samples of cotton. At the beginning of the meetings the classer was introduced as an employee of the Mid-South Cotton Association and the farmers were told to ask him questions as he went along. Each class started with the attention of the farmers centered on the cotton samples and the classer talking grade and staple of cotton.

The Evening Class Becomes a Conference Procedure

As had been anticipated, after the discussion on grade and staple had gone for a short while some farmer would say, "What is the use of us growing better cotton and knowing how to grade it when the buyers here pay the same price for it all?" Here the classer would say, "Well, if you want me to I can tell you how you can get pay for your cotton according to grade and staple." From there on the cotton samples were forgotten and the meeting went into a conference procedure about the A. C. C. A. and the Mid-South Cotton Association. They talked about the association from one to two hours at each place and every farmer seemed to be glad he was there. Numbers of them came around after meetings and said that was the best explanation of the cotton association they had ever heard. A few wanted to sign contracts but the teachers gave them the address of the association office and refused to sign them.

Farmers Must Make Own Decisions

As we do in all other evening school work, we took the position that our job was to get information about the association to the farmers and leave it to them to decide whether to join. We hope they will all join but if they do and are not satisfied they will have no comeback on the teachers of agriculture. If the farmers make their own decisions

and join they are much more apt to be satisfied and remain a loyal member of the association.

Teachers Use More Psychology

It would take too long to tell how the other subjects in the above course were taught but we again emphasize the importance of the proper psychological approach to farmers and farm problems in organizing and teaching evening schools. Teachers who state problems to be discussed at evening school meetings in terms that farmers can understand and of immediate interest will have the most regular attendance.

Notice the problems under meeting number one in the above course. The teacher might have announced that the Agricultural Marketing Act would be the subject. Or he might have said, the Federal Farm Board is to be discussed. But, at the time these evening schools were being taught Tennessee farmers were not thinking about the Agricultural Marketing Act and the Federal Farm Board. In fact very few of them knew enough about these to have known what the teachers were talking about. The farmers were in hard luck and looking for help from any source they could get it. Therefore, the statement, how the Federal Government could help them appealed to them and caused them to attend evening schools.

The Federal Farm Board Program Is Being Continued in Evening School Work

As was stated at the beginning, "It will take a lot of talk about the Federal Farm Board and co-operative marketing to get many farmers to participate in co-operative marketing activities. Therefore, teachers of vocational agriculture in Tennessee are promoting the Farm Board program again this year (1931-32).

Here is a general outline of what they are teaching in evening schools in the cotton section this year:

1. What the Federal Government has to do with the marketing of farm products.
2. What the A. C. C. A. is doing for cotton growers.
3. How the business of the Mid-South Cotton Association is managed.
4. What crops and how many acres of each should each farmer in the community plant in 1932?
5. What livestock and poultry should each farmer in the community keep in 1932?
6. What should each farmer in the community do to improve his soil in 1932?
7. Would it pay farmers to grow one and only one variety of cotton in a community?
8. Would it pay farmers to grow not

over two varieties of corn in a community?

9. Will it pay to use commercial fertilizer in 1932? If so, what kind and how much will pay best?

10. What the State Farm Bureau is doing for Tennessee farmers.

The first three lessons are being taught in September or October, 1931, and the others are to start in December or January. The conference procedure is being used as much as possible in teaching this course. Practically all of the lessons are being taught by local teachers. The Mid-South Cotton Association people have summarized information and furnished large charts to be used in teaching the lessons about the Farm Board and co-operative marketing of cotton. Representatives of the Bureau of Plant Industry, United States Department of Agriculture, are co-operating with us in promoting one variety of cotton in a community.

Winter Legumes Increased

GEORGE WILLIAMS,
Frisco City, Alabama

IF REGULAR attendance and beginning of supervised project work is a measuring stick for successful evening schools, the farmers of Beaumont community, near Frisco City, recently closed a very satisfactory adult evening school. An average attendance of 39 farmers who have planted approximately a ton of vetch and winter peas tells the story of the results of this school.

Beginning with a group of 17, the class grew to 48 farmers. A total of 27 attended at least 12 out of 13 meetings, and after the third meeting there were never less than 36 present. This group included practically every farmer in the Beaumont community and several farmers from Frisco City attended regularly.

The most gratifying part of this evening school was the interest manifested by the farmers. Second to this is the way the members are carrying out the farm practices discussed. They have purchased from the Monroe County Farm Bureau about one ton of vetch and winter pea seed, about eighteen tons of slag. Of the 28 members enrolled for supervised project work, 27 are carrying winter legumes. This is unusual since no member planted winter legumes last year.

Most of the winter legumes projects are located near the roadside and the crops to follow next spring will bear a sign calling the passer's attention to the results. Cotton and corn will be planted after most of the legumes while some mixtures of oats and vetch will be cut for hay. This will probably be the largest winter legume demonstration in Alabama.

The title of the unit course discussed was "Fertilizers." This subject was considered with the question "How Can I Most Productively Invest a Dollar in Fertilizer Materials?" continually before the group. Each meeting opened with a careful study of experimental data of the Alabama experiment station and its recommendations bearing on that topic. This was followed with a round-table discussion of each farmer's experience. From these two leads conclusions were drawn as to the best fertilizer practice for their needs.

Effectiveness of Evening Schools Measured by Financial Returns

W. N. ELAM,
Teacher of Agriculture,
Taylor, Texas

[Editor's Note: During the eight years that Mr. Elam has been teacher of vocational agriculture at Taylor he has taught 16 evening schools. Improved practices resulting are so outstanding that we believe that other teachers will find the reading stimulating.]



Mr. Elam has the unique distinction of having been twice selected as Master Teacher of Texas

COTTON IMPROVEMENT EVENING SCHOOLS

(Report on Improved Practices adopted.)

1. 368 farmers standardized 45,000 acres to one variety (increased value \$4 per acre)	\$180,000
2. Own pure seed gin valued at	35,000
3. Aided in securing passage of Federal Cotton Classers' Bill (saving per bale for correct grade and staple, \$3.50) ...	100,000
4. Co-operative buying of planting seed, 10,000 bushels (direct saving of 50 cents per bushel)	5,000

Total Value of Evening Schools to Taylor Cotton Farmers..\$320,000

SOIL IMPROVEMENT EVENING SCHOOL

Acres terraced, 2,246 thru evening school (valued at \$3 per acre)	\$ 6,738
54 farmers cut stalks instead of burning them on 6,450 acres (value, \$5 per acre)	\$ 32,250

Total Value of Soil Improvement Practices

POULTRY IMPROVEMENT EVENING CLASS

18 farmers keeping special breeding pens (value, \$40 per farm)	\$ 720
48 farmers producing infertile eggs (average premium, 3 cents per dozen)	1,960
40 flocks culled, 2,896 hens. ...	734
30 flocks blood tested for B. W. D.	1,980
278 pedigreed cockerels purchased	2,780

Total Value of Improved Practices

DAIRY EVENING CLASS

13 registered Jersey bull circles. \$	3,900
826 grade cows bred by circle bulls	4,180
46 registered cows bred by circle bulls	460
33 registered heifers purchased, per load	4,200

6 registered bulls not in circles. 800
254 farmers are members of bull circles.

Total Value of Dairy Improved Practice

The total economic return to this community amounted to more than \$300,000 annually.

In his recent text on Evening Schools, Schmidt states, "To help adult farmers solve their economic problems in connection with their business of farming is the chief function of evening class instruction in vocational agriculture."

Adult Education

C. A. FULMER,
State Director of Vocational Education,
Nebraska

EDUCATION is not a matter of lesson assignments and recitations, nor is it a matter of special subjects of instruction. Not all of our education is to be found inside of classrooms or college halls. What is acquired within a certain period of a few years will not be sufficient for a lifetime. Education is a continuous process which enables one to adjust himself to the ever-changing conditions of life. Its completion marks the end of growth and development in an individual.

In order to function as a citizen one must meet successfully the changing demands and rising standards of performances for everything he undertakes to do. One finds it difficult even to keep abreast of the times while only by heroic efforts can he attain to a position of leadership.

Professor Elliott stated a truth when he said, "The ever-receding goal continually widens the gap between what this country needs and expects from its citizenship and the ability of the citizen to meet these expectations." I wonder then whether education may not be defined as anything that makes one different because he knows more and can do more work or think differently or have a changed attitude.

A recognition of the need for further education is shown quite clearly in the eagerness of our citizens for the advantages that come from correspondence schools, schools for Americanization, moonlight schools, and schools for illiterates, extension courses, libraries, art galleries, museums, theaters, movies, radio, reading circles, literary clubs, social settlements, newspapers and magazines, lecture courses, and the ever-increasing number of evening and part-time classes along lines of vocational education.

I hardly need to call your attention to the fact that many thousands drop out of school before the course is completed while many other thousands never did attend school. Generally speaking we have depended upon the education of juveniles as our means of "social salvation." Now we see the need of further education of citizens after they have left the regular schools and taken up in a serious way the responsibilities of life.

The case for adult education rests upon helping the citizen to get what he needs or what he cannot get thoroughly and efficiently thru the chance circumstances of life. Some seem to think, as Dr. Joseph Hart said recently, that "Our real task is that we make sure that

we shall get eventually generations of adults who have escaped the deficiencies and inhibitions of the present and not have to be endlessly re-educated." However, the present generations of school children will not grow up in time to meet adequately the present needs. Furthermore, no system of education can prepare for the rapidly changing conditions of the world.

Adult education is becoming well established as a part of our school system. Many superintendents in Nebraska are carrying on successfully programs in adult education in their communities. Last year adult classes in vocational agriculture, trades and industries, and home economics alone were maintained by more than fifty different school districts with a total enrollment of about 8,000. The number is larger this year. Nebraska has a large number of school superintendents and principals who realize that the school system of the future must offer opportunities for education to all those who, without regard to age, "need it, want it, and will profit by it."

"Live at Home" Evening School

H. A. GLENN,
1930 Master Teacher of South, Kenbridge, Virginia

IN THE fall of 1930 a "Live-at-home Balanced Farm Program" was worked out for Lunenburg County in co-operation with the workers of the Extension Division. This program was unanimously adopted by our evening classes and other farm groups of the county. In this program first consideration is given to the livestock of the farm, with the whole program being concentrated around the livestock units. The cash crops, chiefly bright tobacco, are relegated to a secondary position in our new county program.

We find in this program ample opportunity for our work in crop rotation, soil improvement, the production of specific enterprises, co-operative marketing, and any other activities we may wish to undertake. For instance, our groups found an acute shortage of feed the past spring for their livestock, due to the extreme drought of the summer of 1930, which they met thru co-operative buying. In this way we effected a saving of from \$2,000 to \$2,500 on a \$7,000 volume of feed and seed potatoes by buying in carlots. A further saving of \$1,200 to \$1,500 was effected in buying our fertilizer co-operatively for this season. We plan to establish truck routes to our nearest markets as our livestock production increases.

Some Characteristics of a Good Evening School Procedure

1. Teacher should start the lesson-problem on time and dismiss the class when the allotted time has been used.
2. Personal acquaintance between the teacher-student is essential to free discussion.
3. Each member should be encouraged to take part in the discussions that may arise during the evening. One man should not be permitted to monopolize the entire time.
4. Teacher should carefully instruct visiting speakers to devote their entire

time to the assigned subject, and see that they do.

5. Charted data, visual material and the blackboard should be used freely in seeking a solution to each problem.

6. The teacher should make careful and definite preparation on the lesson-problem before the meeting.

7. Problems that are selected for consideration should be chosen with the greatest possible care. All problems should be drawn from the members of the class, and be sure that they are real problems.

8. Pool the farmer's experience with the teacher's data by making external connection familiar to the farmer.

9. Summarize at the end of each lesson-problem and review all such summaries at the beginning of each lesson.

10. Provide courses of interest to all members of the class, one course for men and one for women, making provision to take care of children while the courses are running concurrently.

11. Have some member of the class look after getting reports to the proper papers—publicity.

12. Start your evening school as early in the school year as possible for you are almost sure to encounter unexpected delays.—From Texas Agriculture News Letter.

Attendance Certificates Stimulate Supervised Practice

O. R. LONG,
Decaturville, Tennessee



O. R. Long

"THIS is the most profitable piece of work that has ever been done in Decatur County," said the principal of the Decatur County High School, Decaturville, Tennessee, in a remark to the writer after the closing of three evening classes.

On the same night the County Superintendent of Education said, "My only hope for educating the people of this county is to get a Smith-Hughes Department of Agriculture in reach of every farmer and his son."

When we started advertising the evening school in the fall of 1930, we announced that we would give certificates to all adult farmers who would attend 80 percent of 12 meetings, to be had twice a week during the winter months, and agree to do one or more improved practices in line with the subject matter discussed in the evening school. This started a lot of talk among the Future Farmers and the adult farmers in the community. The principal of the school, the county superintendent, merchants, bankers, and others heard this talk and saw copies of the certificate, to be given and set out to learn what it was all about.

The talk about the evening school went all over the county. Calls for evening schools came from several other communities. I taught two periods in science in addition to four periods in agriculture and could not find time to teach so many evening schools. I had planned to run the school at Decaturville twice a week but had to cut it to

once a week in order to run schools at Bath Springs and Poplar Grove. The three schools started on January 6, 7 and 8, and ended with a big banquet at the county court house on March 26.

Fifteen farmers had a perfect attendance record for 12 meetings. Fifty-three attended 80 percent or more meetings. One hundred and two attended 30 percent or more meetings. Sixty-nine enrolled for improved practice work as follows: 39 to plant certified seed corn on 300 acres; 21 to plant pedigreed D. P. L. Cotton seed on 175 acres; 21 to join the Mid-South Cotton Marketing Association; 24 to terrace 230 acres of land; 49 to increase legume hay crops by 440 acres; 62 to fertilize crops according to Tennessee Experiment Station recommendations, and 10 to start permanent pastures on 52 acres.

One hundred and forty farmers and their sons paid 50 cents per plate and attended the banquet which was served by the Home Economics Department and the Home Demonstration Agent. The president of the Decaturville Chapter of Future Farmers acted as toastmaster and delivered the welcome address. After several short talks including those by the presidents of the three evening classes 53 certificates were presented by the County Superintendent.

We believe the giving of certificates helped the evening school work in the following ways: It increased the attendance; it increased the number of farmers doing supervised practice work; it improved the quality of the improved practice work; and it played a big part in selling vocational agriculture to the principal of the school, the county superintendent and others.

Editor's note: A copy of this certificate may be secured by writing Mr. Long.

Conference Method Best

MARTIN DECKER,
Egg Harbor, Atlantic County, New Jersey

IN MY district for the year 1930 seven evening school class centers were established. Five classes met once a week from October to March and two met twice a month thru the fall and winter.

Nearness of prospective members to the meeting place is essential, if a large percentage of the farmers of the community is to be enrolled.

The list of topics to be included in the course is determined at the first meeting. Occasionally it is desirable to introduce new problems of current interest.

I have found that it is a good plan to conduct the lessons as much as possible on the conference and discussion basis, using the lecture method in a few instances to tie up the discussions or to bring newer methods to the attention of the farmers. It is also essential that the evening class instruction be practical, using materials that the farmers themselves are interested in and showing them how they can use these materials to better their own conditions.

Actual participation in some activity by the members of the class helps to maintain interest in the work. For example, after a series of discussions on judging for egg production, an evening can well be given over to the actual judging of live birds by the members, thus giving each farmer an opportunity to test his own ability.



Supervised Practice



The Place of Livestock Records in Farm Management

ALBERT MIGHELL, Department of Agricultural Economics, Iowa State College

NO OTHER industry has changed more since the war than farming.

It has become a business and as such it pays more than ever for good management. Recently a study by the Iowa Agricultural Experiment Station showed that among a small group of farmers who have all started business since the war one had saved a total of \$10,000 in the last seven years—an average of \$1,400 each year. Another had lost money in the same period. In 1929 the first farmer received \$4,500 for his labor and management; the latter, \$50.

There is inspiration in these facts for they mean that for each student of agriculture, farming presents a real opportunity for a successful life. The agricultural teacher can pass that enthusiasm on to his students thru a realistic interpretation of the problems of the individual farmer. The problem method with a farm as a problem and records on the business is the means to that end.

No other way presents itself which can compare with farm records as a vehicle for this transfer of ideas. They are a most effective tool in the classroom, but they must be helpful to the farmer if they are to be used and if students are going to feel that they are worth while. What kind of farm records are actually proving useful to farmers? What is the right kind of a livestock record for the farmer to keep?

Too many records kept by students have been an adjunct to an animal feeding project. Tho they are very useful to start off a beginner they fail entirely to show the true place of the enterprise within the setting of a farm business in which it holds only a supplementary position. As the farm boy approaches manhood his interest must center more in those problems of judgment which separate the technique of farming from farm organization and management. He ceases to be interested alone in good feeding methods and adequate care for his pigs and comes to see that future prices for pork, size of his hog enterprise, and all the other things he can use his time and feeds on have to be considered in order to obtain the greatest return for his efforts. This is especially true where dad is opening the way for son to share in the responsibilities of the farm.

First, let us briefly consider the kind of general records which are proving most helpful to farmers now. Without a doubt, farm records kept in co-operative routes are pre-eminently fitted to give the farmer useful service. There is no one study that can teach a young farmer good management as fast as the contacts he gets with the success of other farms thru a record route. Re-

cently when a group of 50 farmers who had been on a free record route for three years were asked what they would be willing to pay to continue the work, they agreed on a charge of \$15 each to cover the expense of supervision and 40 of the 50 signed up at once.

First each farmer was shown his own balance sheet and statement of profit and loss with a comparison with other farms on the route. Then as a second step in his education as a record keeper he was shown the strong and weak spots in his past year's business. The following records from a farmer on one of these routes illustrates how this was accomplished.

of labor, equipment, and power, all factors of expense, indicate that economies in this direction and a successful crop system are largely responsible for success. But the following questions now center our attention on the weak spots of the business:

1. What is the matter with the hogs? One year they are a failure—the other they are above average.

2. What is the matter with the poultry?

3. Can livestock production be expanded?

4. Would expanding the size of business increase profits?

We have now come down to records

Table 1

	—This Farm—		Route Average 1929	High Farm 1929
	1928	1929		
Analysis of Success:				
Management return	\$1,265	\$1,653	\$ 865	\$ 3,486
Gross income	5,037	5,286	6,018	11,940
Total expense	1,612	1,280	2,533	6,760
Expense per \$100 gross income	32	24	41	80
Size of the Business:				
Acres in the farm	161	161	189	398
Months of man labor	14	13	17	36
Head of productive livestock	22	24	29	75

From these figures it is evident that this was a very successful farm with a relatively small business made highly profitable by high efficiency of operation and low expense. The operator earned \$900 for his labor plus \$1,653 for his management or a total of \$2,552 labor earnings. This farm contains less than average acreage and is noteworthy for its efficient use of labor, and relatively small livestock business. What are the possibilities for its improvement?

dealing with the individual enterprises in the business, and are ready to see how those records should fit into the general system of records. Each weak enterprise must submit to a general overhauling to find what really is the matter. Perhaps a little expanding here and a little pruning or a change in methods there will help to increase the total farm profits. The overhaul job we will attempt here will be on the hog enterprise. (See Table 3.)

Table 2

	—This Farm—		Route Average 1929	High Farm 1929
	1928	1929		
Value of Crops per Acre:				
All crops	\$32	\$33	\$27	\$33
Alfalfa	71	66	46	66
Corn	35	40	32	41
Oats	26	23	20	27
The Livestock System:				
Percent gross income from livestock	44%	52%	60%	94%
Return per \$1 of feed fed	\$ 1.08	\$ 1.30	\$ 1.36	\$ 2.43
Return above feed and cash costs per 100 pounds pork	—42	1.73	1.27	4.87
Return above feed and cash costs per 100 pounds beef	4.22	3.13	—2.43	5.12
Return above feed and cash costs per hen	1.13	.96	1.60	4.84
Labor, Equipment, and Power:				
Head of livestock per man	19	22	20	56
Crop acres per man	116	112	102	140
Machinery and equipment cost per acre	\$ 1.44	\$ 1.38	\$ 2.46	\$ 1.07
Power cost per crop acre	2.63	3.12	4.99	2.77

The figures on value of crops disclose at once the fact that the strength of this business lies in the crop system. The livestock system shows relatively less livestock receipts than the average, a weak poultry enterprise and only a moderately successful hog business. Very low costs and high efficiency in the use

It will be noted that the hogs returned \$253 more than the total value of the cash outlays and feed in 1929. This \$253 is what the hog enterprise added to immediate cash receipts. What did this figure mean to the farmer? It meant that after covering feed and cash costs he had left a surplus. The size of this

Table 3

STUDY OF THE HOG ENTERPRISE	This Farm		Route Average 1929	High Farm 1929
	1928	1929		
Success of the Enterprise:				
Return to cover fixed costs and management	\$—68	\$ 259	\$ 251	\$ 1,406
Gross income	1,231	1,447	1,902	6,714
Total feed and cash expense	1,299	1,194	1,744	6,507
Size of the Enterprise:				
Number of litters raised	8	11	13	50
Pounds of live pork produced	16,240	14,510	19,732	62,713

surplus is the all-important thing. In 1928 the hog business on this farm showed this figure to be —\$68 making it a decidedly unprofitable enterprise. The 1929 figure shows a great improvement and one which will probably cover the items of overhead at the going rate on investments, but the farmer cannot be content to stop there saying, "this enterprise is good enough for it covers all my costs." Instead he searches for the most profitable combination of both enterprises and methods. Weighing the alternative uses of each item of overhead is one of the fundamental tasks of management which cannot be accomplished by any system of historical records available. It is a task for judgment, experience, and recalculation for each new situation.

latitude in which he may better his performance. With this study as a background he is now in a position to set up a series of budgets which will enable him to test out to some extent the possibilities of these adjustments. Each adjustment involves the calculation of the changes in gross farm income and total farm expenses which may be expected to result.

With a class of students who are able to visit the farm as well as to study its records, details of the greatest interest may be discussed which cannot be dealt with here. We have taken a look at the relationship between livestock enterprise records and the records of the business as a whole and we have found them inseparable. A whole chapter might still be added in that most inter-

turns; (8) opportunity for development; and (9) the ability of the boy. These points must all be carefully considered before helping the boy and the parent outline his program of supervised practice in agriculture.

The enterprises to be carried out should be selected as early as possible after it is decided what is best for the boy to have. An early selection is advisable as the boy then has a greater appreciation of his school work, and he understands that many of the problems he studies in the agriculture course are his problems. It makes the work concrete and thus stimulates the boy's interest in the work. Early selection also helps the student to work out definite plans on just how he expects to carry on his supervised practice before time to begin it. It also permits the instructor to build the course around the needs of the boy.

Some instructors permit the students to put off the selection of their enterprises until late in the school year. This is not desirable since many jobs that should be done in connection with the supervised work may come in the fall. In choosing a gilt, a boy should not wait until just before she farrows, but he should, if possible, select her before breeding time so as to get the training and experience of the care and feeding of the gilt before breeding and between breeding and farrowing as well as the care afterwards.

Now is the time to encourage the boys to choose the enterprises for their supervised farm practice programs if they have not already done so. Freshmen should be encouraged to work out their programs for their high school career if possible. Where a carefully worked out, well balanced plan is set up during the freshman year for the entire vocational course, much time is saved each year in working out student programs in supervised farm practice work. Such programs prove very beneficial to the boy and the community.

The enterprises can be selected early altho some may say the boy doesn't know what he wants so early in the year. This, no doubt, is more of an alibi than anything else, just an excuse for not having the supervised practice work planned. There are times when early selection may not be the best procedure to follow. For instance, a boy may know that his parents plan to move March first and may not know just where they are going to move. In cases of this kind, the boy may need to wait until after moving before selecting the type of work to carry out as the farm facilities naturally play a part in what he can do.

Table 4

EFFICIENCY OF THE HOG ENTERPRISE	This Farm		Route Average 1929	High Farm 1929
	1928	1929		
Pigs weaned per litter	4.9	5.3	5.8	8.5
Average daily gain, pounds	1.02	.98	.91	1.37
Pounds of corn equivalent per 100 pounds pork produced	525	558	560	385
Pounds of tankage equivalent per 100 pounds pork produced	17	13	14	42
Kind of pasture—Blue grass				
Total death loss	\$36.00	\$106.00	\$76.00	\$637.00
Price received per 100 pounds of pork produced	7.58	9.97	9.64	11.35
Return above feed and cash per 100 pounds of pork produced	—42	1.73	1.27	4.87
Return above feed and cash per litter	—9.00	23.00	19.00	85.00

If you will build a hog house, study your efficiency as compared with your competitor's before you embark on such a long-time program in the hog business for, in the long run, your endeavors must be sufficiently profitable to pay for the investment in the hog house. But if you merely wish to determine whether or not to hold fattening hogs another month before selling, the costs due to use of the hog house and the added labor required may often be entirely neglected and only feed and cash costs be counted. This is true where nothing else could be done with the hog house and extra chore time during the period in question.

In table 4 we begin to see the real characteristics of the hog business on this farm. In 1928 a chief reason for the large losses was the fact that the pigs were marketed at 77 cents less per 100 pounds than the average price received of \$8.35 per hundredweight. In 1929, however, the marketing program was satisfactory as the price received was above average. Death losses in 1929 were high and the ration was very evidently deficient in protein feeds. Good gains were obtained by heavy feeding in both years so that the indications are that with some adjustments in the ration and better sanitation methods this man could feed hogs successfully. He seems to have that ability. The most successful hog man on the route in 1929 produced pork for \$3 per hundred-weight less cost so there is considerable

esting use of livestock records "making wise decisions in the short run and in the production cycle."

Selecting Enterprises for Supervised Farm Practice

G. C. COOK, Assistant Supervisor of Agricultural Education, North Dakota

THERE are many factors to consider in choosing the supervised practice work the boy is to do: (1) the boy's likes and dislikes; (2) the farm facilities; (3) the financial status of the boy and his parents; (4) the parents' willingness to co-operate; (5) the possibilities for improvement of the farm; (6) the needs of the community; (7) the financial re-

Livestock	Grain Required	Hay	Pasture	Summer Pasture for Hogs
2 Cows	80 bu.	8 Tons	4 Acres	
2 Sows (26 Pigs)	80 bu.		2 Acres	(4 Acres in wheat, barley, oats, and a legume. 4 Acres in early soybeans and corn.
100 Hens (300 Chickens)	150 bu.		1 Acre	
2 Horses	100 bu.	8 Tons	1 Acre	
Totals	410 bu.	16 Tons	8 Acres	8 Acres
410 bushels of corn		16 acres		Varieties of Corn: Early Leaming Early Jarvis Silver King
16 tons of hay		8 acres		
Pastures		16 acres		
Garden		2 acres		
Home orchard		1 acre		
Total for Food and Feed		43 acres		Varieties of Soybeans: Early: Haberlandt Dixie
Remain for cash crops		7 acres		
Total		50 acres		Late: Mammoth Brown Tokio



Farm Mechanics



Teaching Farm Shop Work and Farm Mechanics Thru Pupil Projects

G. A. SCHMIDT, Teacher Trainer, Fort Collins, Colorado

[This is a continuation of Professor Schmidt's discussion of this subject which appeared in the October issue]

THE following factors and conditions are more or less responsible for the changes in attitude, in interest, and in effort toward shop work when such work is put on the project basis instead of on the isolated job or exercise basis.

1. The goals, purposes or desired achievements in all real projects act as natural stimulants to application. "It is the strong desire to achieve that which one starts out to do that largely (1) 'fixes the aim of action,' (2) 'guides and directs the action,' and (3) 'furnishes the driving force or motive power to complete the action.' Omit these motives, whole-hearted interests, desires, and purposes and not only is one of the most characteristic feature of a project gone, but you usually have the boy engaged in just another job or bit of supervised practice work."⁸
2. Young people like to express themselves and to do things for themselves. They grow tired of being continually told what to do and how to do this, that and the other thing. "The desire for self-expression, and for self-direction, for approval of one's achievements furnish an incentive, to apply one's self, to do one's best and to complete the job."⁹ No coercion, threats, bribes and other artificial compulsions to make one apply himself are necessary when a boy is wholeheartedly absorbed and engaged in a real project.
3. Real projects arouse in pupils a "mind-set," a real state of readiness and eagerness for doing and learning. There is little real learning taking place when one does not want to learn, when one has the wrong attitude, when one attempts to learn because he is compelled by threats and bribes. The big value of teaching thru projects lies in the fact that educational outcomes are acquired largely as by-products as the boy strives to attain his purposes, his desires, the goals he is seeking. It is generally true, also, that when one is wholeheartedly determined to learn, he can almost get along without a teacher. "In the last analysis the final educational outcome always comes back to the amount of orderly intellectual effort put forth by the student himself. Teachers and books and all the rest of the educational equipment are simply adjuncts to this end. Essentially education is always self education."¹⁰
4. Projects are real and life-like

activities. Shop exercises are artificial tasks, they lack a natural setting. Much of the effort one puts into the task depends upon his conception of the job. Farm boys quickly sense the relationship between school tasks and life's needs. They like to do real things, something in which they see a practical value. They apply themselves to worthwhile tasks; they waste time and are careless on jobs which they regard as having little practical value.

5. Pupils are wholeheartedly interested in real projects; and interest is one of the most important factors in learning. "Genuine interest," says Dewey, "involves an identification of the learner with the task in hand; the propelling incentives are always found within the task." Learning generally takes care of itself the minute the pupil identifies himself wholeheartedly with the task in hand. There is always more interest in a project than there is in isolated jobs or exercises.
6. Teaching thru projects always brings about a better relationship between the pupil and the teacher because the project worker appreciates practical suggestions and instruction which helps him better to attain the goals and purposes of his project. This more wholesome relationship between pupil and teacher also reflects itself in a better attitude toward the school, and it creates a more favorable environment for effective work.
7. Pupils always get much more real satisfaction and pleasure out of work done on their projects than they do out of tasks whose results are to be thrown away or destroyed when finished. One tends to repeat an act that gives satisfaction and one tends not to repeat an act that gives annoyance. This is the law of effect as it applies to learning. Satisfiers and annoyers are great educators. Interesting and absorbing projects are great satisfiers. Super-imposed exercises are generally annoyers to wide-awake, active boys.

The Value of Teaching Thru Project from the Standpoint of Good Pedagogy

Efficiency in instruction means attaining the desired objectives with the least expenditure of time and energy, and cost. Teaching farm shop work and other forms of farm mechanics thru

pupil projects is a more efficient method of instruction than is teaching these subjects thru other devices—such as the isolated job method, the exercise method, or by a method which combined these two. I believe the following statements make his point clear.

1. When one is vitally interested in and wholeheartedly absorbed in an activity, he intensely applies himself to his tasks and he avoids distractions, and impulses to think about and to do other things. Under these conditions the most effective learning takes place.
2. "A very large proportion of the fruitful experiences of life are of the purposeful type. We make permanent changes in our behavior while we are in the pursuit of definite ends."¹¹
3. "What is learned in a life situation has cues and feelers joined to it that promise best for its future use. What is learned from a systematic course in a book is in danger of lacking these life connections and so it is in danger of lying idle in the mind when the occasion arises to use it."¹²
4. The best time to learn anything is just before one has occasion to use it. Knowledge, facts and theory, and doing should grow up together. When thus acquired facts have a much stronger tendency to keep alive for future use.
5. "The project is the best 'hitching post,' ever devised by educational engineers, to which knowledge and skill can be securely tied. Surely projects are much stronger posts to which to tie knowledge and skill than are school exercises or pseudo jobs, which ordinarily do little more than keep a pupil occupied. When a boy seeks knowledge and skill to achieve some dominating purpose in which he is vitally interested, he not only acquires knowledge and skill but these stay with him after he has once acquired them. The weakness of so much teaching is due to the fact that for the pupil it is mere 'busy' work; it affords him nothing to which he can tie the facts and skills he is expected to acquire; as a result he soon loses them."¹³
6. Projects are a big factor in maintaining good discipline in a shop class. The discipline which results from having the shop work so enticing, so interesting and so engaging that the surplus energies, which ordinarily go into boyish pranks and mischievous behavior, are

redirected by purposeful activity, is the best type of discipline possible in a school shop.

7. If teaching means guiding, directing, encouraging and stimulating learning, and if learning means acquiring a new way of behaving, a new and better way of acting, then more true teaching and more true learning take place thru the use of the 'project method' than of any other school procedure.
8. The conduction of real projects develops initiative, resourcefulness, originality, a sense of dependability to find and apply facts to a degree far superior to any other educative device.
9. Pupils can be trained to think much more effectively thru their project work than they can thru any other means. This is so because every project is literally full of problems. The problems are real life problems, very definitely defined, and the pupils recognize them as their own problems. They are therefore vitally interested in solving them. This condition provokes intense application to problem solving—much more so, by far, than do other school procedures.
10. Much more of the skills and knowledge acquired in the execution of a project are transferable to common life situations than are the skills and knowledge acquired by other means of learning because real projects are life-like activities.

Pupil Activities in Project Work

I like to think of eight distinct steps or pupil activities in which a student must engage in order to do a real good piece of project work. These steps are (1) Selecting; (2) Purposing; (3) Analyzing; (4) Studying; (5) Planning; (6) Executing; (7) Accounting and (8) Judging. These eight steps will now be briefly described.

1. *Selecting the Project.* Each boy must select his own project. No one can select a project for someone else and have it a wholehearted purposeful activity. Neither should a project ever be imposed upon a boy. It must always be voluntarily selected. Every project must be an educative device; a project in farm mechanics work should therefore always involve one or more enterprises made the basis of the year's instruction. Projects that overlap into work designated for future training should be modified to conform to the instruction designated for the year. The major objectives of the year's work should be uppermost in the mind of the teacher who is helping boys to select good projects. Projects should be adapted to the maturity and capacities of the boys. Satisfactory outcomes are necessary in successful project work. Failures are too great annoyances to be chased.

The teacher has an important task in leading pupils to see good project possibilities. His duty in this step is to open the boys' eyes and to lead them to want to select good projects. He should make many suggestions and drop many cues which will lead boys to want to conduct projects.

"It matters little whether the teacher suggests the situations leading to the selection of good projects or whether the pupils hit upon them by themselves.

The important thing is that the pupils should clearly grasp the purpose and enter wholeheartedly into it."¹⁴

2. *Purposing.* To get boys to see and to set up good, worth-while, challenging purposes, aims or achievements is undoubtedly one of the most important steps in teaching thru projects. As in the original selection of the project, no one can purpose or set up wholehearted purposes for someone else. We all have our ideas of what we want to do and would like to do. We have our own interests, and yet it must be clearly understood that:

"The end in view is the most important factor in the project. It stimulates zeal, determines the choice of means, guides the activity and provides the final measure of success. It warms the mind to action and makes it most effective. When the pupil loses sight of it he is like a mariner without a compass. An earnest, worthy purpose is the heart of the matter. Unless a teacher can secure this, he fails in the most essential factor."¹⁵

The stronger the purposes are, the greater the determination to overcome obstacles, to apply one's self, to avoid distractions, in brief, "to fight" and to win. This term "fight-fight-fight," so generally used in reference to football games, does not, as so many people believe, mean fight from the pugilistic point of view. It means to work with a whole-hearted spirit of determination, to do one's best to succeed. A boy needs just such a spirit of "fight" in his project work to get the best results.

About the only way a teacher can get this "fighting spirit"—real, whole-hearted purposes—into a project work is to talk to the boys the way a football coach talks to a football team before a game, when he is determined to win, or particularly in the way he talks to the players between halves, when the score is against the team and he wants them to go back into the second half and win. Successful athletic coaches have wonderful ways of inspiring their teams. Teachers need to know some of the secrets of these ways in order to inject the right spirit into project work.

3. *Analyzing the Project.* In analyzing a project the boy needs to discover or ascertain the various jobs which need to be done or may have to be done in the project. "What are the things I need to make, to overhaul or to repair?" he asks himself. He needs to consider his own needs, and perhaps also those of his father, and even sometimes those of his mother. When the boy is thru with this step, he has a general notion of what he wants to do or what needs to be done in his project. Here again the instructor should guide the boys, leading them thoroly to analyze their projects. Arranging in a progression order the various jobs which need to be done in the project is also an important step at this stage of the project; here also the instructor has an important function in guiding project workers so as to insure their success.

4. *Studying.* It is in this step where much of the educational features of a project come into play. How shall I do this? What material shall I use? How large shall I make this? How shall I proceed? These are real problems confronting every project worker in farm mechanics work. Shop books, reference books, bulletins, circulars and pamphlets

are in the shop reference library to help the boy solve his problems. After going to these helps, and sometimes too after consulting his instructor, his father or others who have had much practical experiences along the particular lines of his needs, the boy should of his own accord come to some definite ideas as to what to do and how to proceed in the doing. In every instance the boy should himself make the final decision; assuming the responsibility of these decisions is excellent training for him. One learns to think by thinking thru many practical problems. It is the self activity of the pupil that educates him and not what is done for him.

"Self-activity is necessary to effective growth. No athlete ever trained by watching someone exercise. Neither can a pupil grow mentally thru observing a teacher's ability in making translations or juggling with mathematical formulae."¹⁶

"It is the pupil's practice alone that can educate him and practice is impossible without freedom for practice. If the pupil is to be an intelligent user of what science has to offer he must practice finding and adapting, to his own use, what science has to offer to his problems."¹⁷

5. *Project Planning.* Learning is acquiring a new way of behaving, a new and better way of acting. When one, as a result of his study, acts differently (of course for the better), does differently, or thinks more clearly, and acts accordingly he has learned something. He is now a changed or a different individual, and we say that education—that is, growth and development—had taken place. Where necessary these new ways of behavior in relation to the work of the boy's project are to be put into a written statement, outlined or sketched. All the work in the previous step (studying) was encouraged to get the boy to discover this new way of behaving, and it is essential that the instructor know what this new way is to be before the boy actually engages in it. For this reason we have the boy make plans for the important tasks before he actually engages in them. Project planning is simply outlining what to and how to do it—outlining the new way of behavior. Then, too, a plan of action is always much better understood when the pupil works it out for himself and does the necessary thinking concerning it. There is only one way by which a boy can learn to formulate plans; that is by having him make plans under expert guidance with the aid of constructive and helpful criticism such as any teacher should be able to bestow.

"Make your plans in writing. This forces you to be clear about your purpose. If you merely mull them over in your mind, all sorts of loopholes in your logic will escape you. Most of us do not realize how foggy our ideas are until we try to write them down in clear and simple sentences (or sketch them out on a piece of paper)."¹⁸

6. *Executing the Project Plans.* Project job plans have but one purpose; and that is to guide and direct one in his future actions. Plans should be put into operation; otherwise they remain merely day dreams. When once carefully formulated they should not be changed until after a most careful consideration. Snappy judgment, "flying off the

(Continued on page 80)



Future Farmers of America



Fry Issues Call for National Convention

TO MEMBERS OF THE FUTURE FARMERS OF AMERICA:

The national constitution of the Future Farmers of America provides that a meeting of the national organization shall be held annually at a time and place determined by the national Board of Trustees and that the president shall call such meeting in accordance with this provision.

As president of Future Farmers of America, I am, therefore, issuing a call for our Fourth Annual Convention from November 16 to 20 at the Baltimore Hotel in Kansas City, Missouri. This convention will be held in conjunction with the Sixth Annual National Congress of Vocational Agricultural Students taking place at the time of the American Royal Livestock Show.

Each state which has been awarded an F. F. A. charter and which is in good standing with the national organization is entitled to two official delegates; all states are urged to arrange for full representation. In addition other F. F. A. members and friends of the organization are cordially invited to be present.

LESLIE FRY,

President of the F. F. A.

Sixth National Vocational Congress November 14-20

KANSAS CITY, Missouri, will again be the mecca for several thousand vocational agriculture students and teachers during the days of November 14 to 20.

Days and nights will be crowded with interesting events and sights. Farm boys from all over the United States will have an opportunity of visiting with one another and of becoming acquainted with the life of a great middle west city.

Preparations have been in progress for many months to make this congress surpass all previous ones. Dr. C. H. Lane, national chairman, and all members of his staff have been conferring and planning with men in Kansas City to the end that every single boy may be happy that he made the trip to the congress and the American Royal.

The Hotel Baltimore will again be the official downtown headquarters. The management has offered a rate of \$1.25 per day per person and reservations should be made early by writing direct to the resident manager.

All judging teams, official delegates, public speakers, railroad prize winners, and ton litter winners should register at the Baltimore headquarters. All other vocational students and teachers should register at the main entrance of the American Royal Building where passes will be provided and other necessary details attended to.

Coaches of the livestock and meat judging teams are expected to meet at the Hotel Baltimore promptly at 7 p. m. on November 15. This meeting is extremely important and attendance should be 100 percent.

Vocational Livestock Show will again be conducted under the direction of C. L. Angerer of the Missouri supervisory staff. During past years, Mis-

souri and Kansas have been the only states to send exhibits. Other nearby states should take advantage of this opportunity. The large amount of prize money attracts a splendid showing.

Livestock Judging Contest will be held on Monday, November 16, at 8 a. m., with J. A. Linke of the Federal Board as superintendent. Approximately thirty-five state championship teams will be entered. Each team must judge two rings each of breeding cattle, breeding sheep, breeding swine, and draft horses. Prizes for this event amount to several thousand dollars in cash, scholarships, medals, watches, and other valuable items.

Meat Judging competition will be held on Monday, November 16, at 2 p. m., with L. B. Pollom of Kansas, in charge and the National Livestock and Meat Board co-operating.

Fourth Annual F. F. A. Convention will be in session and reports, election of officers, plans for future, and other items of business will occupy the attention of delegates for many hours.

Vocational Exhibits from various states will be in evidence under the direction of L. F. Hall of Kansas. These will be well worth studying as a source of inspiration and new ideas.

Essay Contest sponsored by the American Royal offers \$50 in prize money for winning essays on "The Value of My Trip to the American Royal Livestock Show." Keep your eyes open and write the prize essay when you return home.

Public Speaking Contest for the selection of the best speaker in the F. F. A. will be held on the evening of November 16. Prizes totaling \$1,000 have been provided by Senator Capper and the speeches will be worth hearing.

Sightseeing and special entertainment has been planned so that every vocational student should have a thoroughly good time.

Much of the pleasure of this event will be due to the generosity of Kansas City citizens. In the past vocational agriculture students have built up an enviable reputation as being a well-behaved, courteous, and good humored group of boys. Let's resolve to keep that kind of a reputation so that we will always be welcomed wherever we go.

F. F. A. Radio Programs

The F. F. A. is still presenting programs over the N. B. C. chain during the Farm and Home hour. These programs are offered every second Monday of each month. Officials are anxious to learn the number of persons who listen to these programs and urge that such information be sent in by chapters and advisers.

The national Public Speaking contest will be broadcast by the N. B. C. at this hour on Tuesday, November 12.

Music Appreciation Hour

Walter Damrosch is again conducting his famous orchestra in a music appreciation hour each Friday at 11 to 12 E. S. T. Where a radio set is available in the classroom, it may be wise to listen in. Such an hour may not increase skill in weeding onions but it might help to make the task less tiresome.

Send for This

"Care and Repair of the House," Phelan, a bulletin of the United States Department of Commerce, Washington, D. C.

California, Massachusetts, and New Jersey Win

Seventh Annual Dairy and Poultry Contests Arouse Keen Competition

CALIFORNIA, Massachusetts, and New Jersey were the states achieving first rank in the dairy, poultry, and milk judging contests for vocational agriculture students held October 10-12, at St. Louis, Missouri.

Thirty-two teams competed in the judging of dairy cattle. Jerseys, Ayrshires, Guernseys, and Holsteins were used, with two rings in each class, one of cows and one of heifers. College specialists and breed association representatives contributed their time in placing the animals and determining cuts to be made. The contest was held on Saturday morning and was efficiently conducted with W. A. Ross, R. D. Maltby, and C. L. Angerer actively in charge. Cards had been turned in, the placings explained by the judges, and the animals returned to their owners just before noon.

Maynard Ekstrom of Newman Grove, Nebraska, was the high ranking boy in judging all breeds and received as a prize a \$400 scholarship for use in attending agricultural college awarded by the De Laval Separator Company. Maynard also receives a Wahl pen and pencil set from The Country Gentleman.

Tomales High School represented California in the dairy contest. The team members were Neibo Casini, Donato Albini, and Edward Williams. They were coached by W. H. Reasoner. Each boy received a gold medal from the National Dairy Association. As a team, California takes home the trophy cup awarded by Purina Mills.

Massachusetts, with a team coached by N. V. M. Smith, and composed of Henry Brousseau, Alfred Gould, and Roger Purrington, placed second in judging all breeds of dairy cattle and each member received a silver medal from the National Dairy Association.

Third place was taken by the Illinois team of Ridgely, coached by J. E. W. Olson, and bronze medals were awarded by the National Dairy Association to its members, C. Newbert, C. Truett, and L. Metheny.

The Kansas team from Norton, coached by R. G. Frye, placed fourth, and the Tennessee team from Sevierville, coached by M. R. Brasher, was fifth in the judging of all breeds.

Team alternates rendered invaluable service by holding and showing the animals during the judging period. In recognition of this service, the first "Showmanship Contest" was inaugurated. Donovan Reggo of Bodega, California, handled his animals in splendid style and was given first place. Earl Reed of Mart, Texas, and Wilson Plank-eborn of Hyde Park, New York, placed second and third. Each boy received a pocket knife presented by Purina Mills.

Neibo Casini, as high boy on the first place team, received a wrist watch from the J. B. Ford Sales Company of Wyandotte, Michigan. Edward Bock, New England, North Dakota, as second high

individual in judging all breeds, received a set of the New Human Interest Library, donated by the Midland Press. The first 10 high boys and members of the five high teams will each receive a certificate from the American Vocational Association.

Twenty-Three Milk Teams

Of the 69 boys who competed in the milk judging contest, Malcolm Davis of Wesson, Mississippi, stood at the top. He received as an award, a 17-jewel gold watch, given by the National Co-operative Milk Producers Association of Washington, D. C. Donovan Rego, Tomales school, California, placed second, and received a Waltham watch, donated by the National Dairy Council of Chicago, Illinois. Roger Purrington of Arms Academy, Massachusetts, received as third place winner, the New Nature Library, given by Doubleday, Doran and Company, Garden City, New York.

Fourth to tenth places in milk judging were taken by the following boys: Aurelle Corder, Norton, Kansas; Edward Strickling, Woodsfield, Ohio; K. Kinsinger, Chenoa, Illinois; Peter Decinque, Woodvine, New Jersey; Austin Ressie, Lafayette, New Jersey; Neibo Casini, Bodega, California; and Stanley Froistad, Newman Grove, Nebraska. The boys receive certificates from the A. V. A.

New Jersey was the winning team in milk judging, followed in order by California, Kansas, Massachusetts, and Illinois. Mr. C. O. Henderson, state supervisor of Mississippi, was superintendent of this contest and was ably assisted by Mrs. and Miss Henderson.



Massachusetts Team Wins Poultry Judging with Henry Brousseau (left) of Segreganset and Alfred Gould of Northampton as Judges

Poultry Contest Close

Henry Brousseau of Segreganset, Massachusetts, was the individual winner in the poultry judging contest competing against 39 other boys representing 20 states. He received a gold watch presented by Swift and Company of Chicago, Illinois, and as a member of the winning Massachusetts team, he received a gold medal from the St. Louis National Poultry Show.

Odelle Nevills of Abilene, Texas, as the second high boy in the contest, received a leather-bound copy of the Americana Annual for 1931 from the Americana Corporation of New York, and a medal from the American Poultry Association. L. Vanderhoofven of Guymon, Oklahoma, as third high boy, received a medal from the American Poultry Association.

The fourth to tenth high ranking judges were: Carl Rowell, South Carolina; Robert Hollister, Minnesota; Austin Risse, New Jersey; Roy Pusey, Nebraska; Charles Reed, Michigan; W. F. White, Mississippi; Alfred Gould, Massachusetts.

The Massachusetts team, which ranked highest as a team in the contest, received a silver trophy cup presented by the Purina Mills of St. Louis, Texas, Illinois, New York, and New Jersey followed Massachusetts in the order named. The St. Louis National Poultry Show presented gold, silver, and bronze medals respectively to the first, second, and third place teams.

Eight classes of production poultry were used in the contest. There were four birds in each class and 15 minutes were allowed for placing. Mr. J. E. Hill, state supervisor of Illinois, was superintendent of the contest.

The 10 high boys in judging all breeds of dairy cattle were the following:

1, Maynard Ekstrom, Newman Grove, Nebraska; 2, Everett Bock, New England, North Dakota; 3, L. B. Caine, Jr., Richmond, Utah; 4, C. Neubert, Ridgely, Illinois; 5, Henry Brousseau, Segreganset, Massachusetts; 6, Roy Denton, Sevierville, Tennessee; 7, Glen Hazlett, Norton, Kansas; 8, C. Truett, Ridgely, Illinois; 9, Alfred Gould, Northampton, Massachusetts; 10, Arnold Espinosa, Del Norte, Colorado.

Jersey Winners

Individual winners in Jersey judging ranked as follows:

1, Neibo Casini, Bodega, California; 2, Aurelle Corder, Norton, Kansas; 3, Roger Purrington, Shelburne Falls, Massachusetts; 4, Aubrey Walters, Gaithersburg, Maryland; 5, A. O. Blue, Laurel, Mississippi; 6, Carl Wengler, Fredericktown, Missouri; 7, Duane Clark, Worthing, South Dakota; 8, C. Anderson, Loris, South Carolina; 9, Ray Terral, Excelsior, Oklahoma; 10, Eldon Noble, Richmond, Utah.

The high ranking states in Jerseys were Massachusetts, Kansas, California, Texas, and New Jersey.

Gold, silver, and bronze medals were presented to the three high boys by the

American Jersey Cattle Club and members of the winning team each received a medal as well.

Holstein Winners

Holstein rankings for individuals were as follows: 1, Joe Nasset, New England, North Dakota; 2, Edward Widner, Sevierville, Tennessee; 3, George Mathers, Mill City, Pennsylvania; 4, J. Nemecek, Noble, Oklahoma; 5, Francis Wimble, Westford, Vermont; 6, Everett Bock, New England, North Dakota; 7, Cyril Jensen, Grover, Wyoming; 8, L. B. Caine, Jr., Richmond, Utah; 9, Donald Nichols, Wisconsin Dells, Wisconsin; 10, Alfred Case, Little Rock, Arkansas.

The five high teams in Holstein judging were North Dakota, Vermont, Tennessee, Oklahoma, and Iowa.

Joe Nasset of North Dakota, as high boy received a \$250 scholarship and a de luxe copy of the Holstein-Friesian history from the Holstein-Friesian Association of America. Holstein-Friesian histories were also awarded Everett Bock and George Gerlich and to the coach, J. I. Maum.

Guernsey Winners

Guernsey high 10 individual winners came from 10 different states as follows:

1, Glen Hazlett, Norton, Kansas; 2, Albert Becker, Glassboro, New Jersey; 3, Maynard Exstrom, Newman Grove, Nebraska; 4, Woodrow Stamper, Black Oak, Kentucky; 5, Max Michael, Sidney, Ohio; 6, Everett Bock, New England, North Dakota; 7, Alindo Blatti, New Hampton, Iowa; 8, Donato Albini, Bodega, California; 9, Lanyce Walker, Mart, Texas; 10, Roy Denton, Sevierville, Tennessee.

High teams in Guernsey judging were Kansas, New Jersey, Kentucky, California, and North Carolina. Watch charm medals were awarded to the members of the high team and to the high individual by the American Guernsey Cattle Club.

Ayrshire Winners

In Judging Ayrshires, the following boys placed in the order indicated:

1, James Vanmatre, Martinsburg, West Virginia; 2, Carl Davidson, Sidney, Ohio; 3, Albert Gould, Northampton, Massachusetts; 4, Robert Conrad, Fredericktown, Missouri; 5, J. Nemecek, Noble, Oklahoma; 6, C. Truett, Ridgefarm, Illinois; 7, Edward Will-

jams, Bloomfield, California; 8, Jack Harrison, Bethlehem, Georgia; 9, Wilbar Bunch, Bath, North Carolina; 10, C. Neubert, Ridgefarm, Illinois.

The high five teams in Ayrshires were West Virginia, Missouri, Ohio, California, and Massachusetts. The three high ranking boys received gold, silver, and bronze medals, respectively, awarded by the Ayrshire Breeders Association. The Martinsburg, West Virginia, team received a silver trophy, and G. O. Mullan, the coach, a fine cane, awarded by the same association.

Full Program Program Provided

Altho the majority of the judging teams and the coaches arrived in St. Louis and registered on Friday, the activities of the convention did not start until Saturday morning. The program for the three days was worked out by the Chamber of Commerce and co-operating merchants under the direction of O. E. Allen of the Agricultural Bureau. The program is given here-with:

Saturday, October 10

8 a. m.—Vocational students cattle judging at arena.

Afternoon—Visit Exposition including entertainment program in the arena.

1 p. m.—Vocational milk judging contest.

7:30 p. m.—Public speaking contest at Mary Institute Auditorium, Lake and Waterman Avenues.

Sunday, October 11

8 a. m.—Leave Marquette Hotel, Eighteenth and Washington Streets, on busses for Ralston Purina Farm.

Church services under the auspices of the St. Louis Y. M. C. A.

Lunch at farm as guests of Purina Mills.

5:30 p. m.—Return to Marquette Hotel.

Monday, October 12

7 a. m.—Visit Commission Row. (Meet at Broadway and Morgan Streets).

8 a. m.—Visit fruit auction.

8 a. m.—Poultry judging contest at Poultry Show Building, Arena, Grounds.

9:30 a. m.—Visit Federal Reserve Bank.

10:30 a. m.—River trip on the city boat Erastus Wells. Box lunch while on the boat.

1 p. m.—Leave the boat on busses to

the Zoo and Lindbergh's trophies.

7 p. m.—Official banquet for all teams at Missouri Hotel.

7:45 p. m.—Horse Show at Arena for vocational students not attending banquet.

Banquet Well Attended

A banquet was tendered to teams and coaches by the National Dairy Show. This was held at the Missouri Hotel and attended by 265 vocational students, teachers, and friends. Dr. C. H. Lane, chief of agricultural education for the Federal Board, presided and presented speakers and awards.

Mr. A. J. Glover, editor of Hoard's Dairyman, made the principal address. He stressed the need for special care in breeding dairy cattle for milk production. He stated that careful studies had indicated the three fundamental factors in farming success to be: (1) the will to do; (2) the co-operation of the wife; and (3) a liking for the job.

Guests who were introduced by Dr. Lane included Mr. Charles L. Hill, president of the National Dairy Show; Mr. Frank Mullen, National Broadcasting Company, Chicago; Mr. O. E. Reed, chief, Dairy Bureau, United States Department of Agriculture; and Mr. Ray Cuff of the Kansas City Livestock Exchange. State supervisors, teacher trainers, and members of the Federal Board staff were also presented.

The principal business of the evening followed with the naming of winners and the awarding of prizes. Pictures were taken and a tired but happy crowd of boys hurried away to make preparations for the homeward journey.

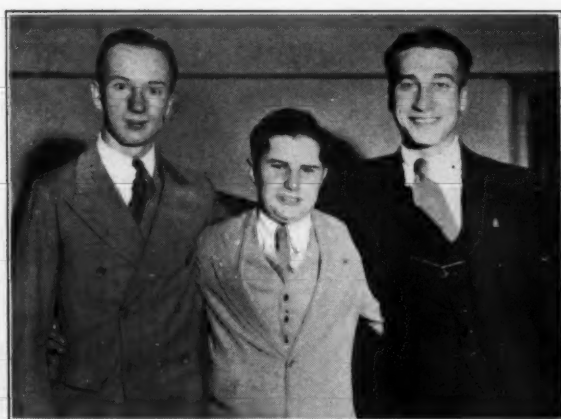
Comer Passes On

Mr. H. L. Comer, who has been in charge of the agricultural school at Munox, Philippine Islands, died on September 5, as the result of a gasoline explosion. Mr. Comer was a graduate of the Colorado Agricultural College with a master's degree from Iowa State College. He was for several years the superintendent and teacher of vocational agriculture at Ocheyedan, Iowa.

Mr. Comer was an occasional contributor to *Agricultural Education* and one of its most appreciative readers. In the May, 1931, issue one of his typically enthusiastic statements about the magazine was cited editorially.



Winners of Dairy Cattle Judging Contest: Donato Albini, Neibo Casini, and Edward Williams as the Tamales High School Team



New Jersey Milk Judging Team Wins. Austin Riese, Albert Becker, and Peter Decinque

A Superintendent Looks at Vocational Agriculture

(Continued from page 68)

tary organization and practice. Third, it should be used as an agency for the development of leadership. Fourth, the program should provide practice in the preparation and delivery of talks on appropriate topics. Fifth, within judiciously prescribed limitations, social recreation might be included in its activities.

During recent years a certain state and national organization has come into existence, known as "The Future Farmers of America," the local units of which are the high school agriculture clubs. This enterprise may afford certain decided advantages. It is going to be easy, however, for the original purposes of the local clubs to be obscured, and for the main interest to be centered in the organization itself, in the electing of officers, and in choosing delegates to conventions. Remembering that the purpose of agriculture as a department of instruction in high schools is to prepare farm boys to become better farmers, it is important that the function of the agriculture club be not diverted to the support of something else.

Finally, we have recognized that no matter how efficiently we may conduct a department of vocational agriculture, its success will ultimately depend in some degree upon the attitude of the people of the community which it serves. It has been our purpose to avoid propaganda or misleading publicity. The director, however, has been encouraged discreetly to identify himself with the interests of the people with whom he lives. We have recognized that a teacher's effectiveness is oftentimes largely determined by what people think about him. The one who shuts himself up in a schoolroom all day and his living quarters at night, and does not make local contacts, denies himself a certain moral backing of friendships among the people of the town. The successful teacher of agriculture should not be too aggressive in projecting himself into community activities. He should not align himself in controversial matters. At the same time he should be ready discreetly to take part when his interest is solicited in community activities.

Teaching Farm Shop Work and Farm Mechanics Thru Pupil Projects

(Continued from page 76)

handle," without due consideration of all the factors involved, has spoiled many good plans based on a careful consideration of all the important factors. Such action is generally also regretted after the thing is all over. Many good jobs are spoiled because carefully developed plans have been changed by snappy judgment. It is the teacher's task to see that the boy is properly executing his plans and to give him such instruction as is essential to the doing of a good job. It is at this point, too, where job sheets have a great functional value for the boy.

7. *Project Accounting.* It is easily possible in all projects in farm mechanics work to keep simple and accurate rec-

ords and it is highly desirable that this should be done. This record form should show (1) the various jobs done in the project, (2) the time spent on each job, (3) the cost of the labor on each job, (4) the cost of materials used, (5) the total cost of each job, (6) the estimated value or the increased value of the article, (7) the net profit, and (8) the return per man hour expended. Such a record gives a good basis of judging the efficiency with which the project has been executed and shows the boy the value of his labor. Furthermore, it is always interesting to know just where and how one stands after he has engaged in an activity involving the expenditure of considerable time and money. Every boy needs to learn how to economize on time and expenditures and an accurate system of accounting is the only means thru which he can learn this important lesson. A project without accurate records is much like a clock without hands—it goes but it tells nothing.

8. *Judging the Outcomes.* Was the project really worth while? What have I learned? What have I gained? How well did I reach my goals, my purposes? Where did I make mistakes? How can I in the future avoid these mistakes? Did I spend too much money? Did I put too much labor on the job? and so on. These are the questions the boy needs to ask himself when he has completed a project. We improve in any undertaking by analyzing the results of our work and by trying to discover how to overcome these things which have prevented the greatest success.

Teaching Thru Projects Is in Accord With a Sound Philosophy of Education

I believe the general statements mentioned below, show that teaching thru wholehearted purposeful activities (that is, projects) is one of the best methods of instruction.

1. "Learning is a process of activity; what one learns is the product or outcome of his own activity, physical, intellectual and emotional. The activity of another person contributes to one's learning only as it affects his activity. Thus the teacher's task is, first, to stimulate his pupils to engage in activities that will be highly productive of the specific habits, knowledge and general patterns of conduct which he desires to engender, and second, to direct them as they endeavor to participate in these activities so that there will be a minimum of waste effort."—Walter S. Monroe.
2. "The modern school seeks to create an environment made up of real life situations. In it the pupil comes into possession of habits of thought and of action destined to be a part of his personality thruout life."—N. E. A. Research Bulletin, Vol. III, No. 4.
3. "It is possible to organize a curriculum wholly upon the basis of activities of life in which pupils actually engage rather than in terms of subjects, in which, as such, few are engaged. It is believed that this is ideally desirable."—Frederick Bonser.
4. "Education is a present activity and not a product to be striven for. It is life and growth in a social

environment."—Frazer and Armentrout.

5. "The best training results from meaningful activity growing out of the pupil's needs and interests."—N. E. A. Research Bulletin, Vol. III, No. 4.
6. "Problems assigned to pupils because of their value to adults have little interest for the pupils. Real problems confronting pupils in their present activities challenges the pupils to solve them. They need no threats and bribes to do so."—Frazer and Armentrout.
7. "Competency in the performance of activities results from the proper performance of these activities under normal conditions."—Franklin Bobbitt.
8. "The new school is one in which the pupils are actively engaged in educating themselves. The old school is one in which students come to be fed. We need an energy-releasing form of education."—N. E. A. Research Bulletin, Vol. III, No. 4.
9. "Some day we shall learn that there is very little that we can do for other people beyond helping them to help themselves. And when we learn this elementary fact about human nature, we shall probably recast many of our notions about education. Today the teacher's sole function should be that of stimulator and guide in the learning process."—Glenn Frank, President of University of Wisconsin.
10. "The curriculum should be conceived in terms of a succession of experiences and enterprises having a maximum of lifelikeness for the learner. The materials of instruction should be selected and organized with a view of giving the learner that development most helpful in meeting and controlling life situations. Learning takes place most effectively and economically in the matrix of a situation which grips the learner, which is to him vital—worth while. Facts learned in a natural, or lifelike setting, give promise of emerging definitely in appropriate conduct. It is the task of the teacher and the curriculum-maker, therefore, to select and organize materials which will give the learner that development most helpful in meeting and controlling life situations. The method by which the learner works out these experiences, enterprises, exercises, should be such as calls for maximal self-direction, assumption of responsibility, of exercise of choice in terms of life values."—The Twenty-sixth Yearbook of the National Society for the Study of Education.

8—Taken from "Teaching Farm Shop Work and Farm Mechanics" by Schmidt, Ross and Sharp.

9—Taken from "Modern Methods in High School Teaching" by H. R. Douglass.

10—From article written by Dr. James Rowland Angell in Harper's Magazine, October, 1927.

11—Taken from "Brief Guide to the Project Method" by H. R. Douglass.

12—Taken from "Foundations of Methods" by W. H. Kilpatrick.

13—Taken from "Teaching Farm Shop Work and Farm Mechanics," by Schmidt, Ross and Sharp.

14-15—From "Brief Guide to the Project Method" by H. R. Douglass.

16—E. R. Smith in the Forum, March, 1926.

17—W. H. Kilpatrick in "Foundations of Method."

18—Taken from an article by Edward A. Felt.

